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Building & Highway Material Testing Laboratory

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Ref No: CTCE/BBMP/WNo.05/KRIDL/WMM-AIV/2014-15 10.05.2014

Aggregate Impact Value

IS 2386 Part IV

Customer	**Asst. Executive Engineer,** Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	Improvements to Main and Cross Roads; Construction of drains in G. P. Palya Layout in Ward No. 05 of Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Reference	BBMP/AEE/YSSD/445/2013-14
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	10.05.2014

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	382	385	
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	81	86	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	299	
4	Aggregate Impact value = percent fines	21.20	22.34	
	$100^* (W_2/W_1)$%			21.77

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

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Lab No: CTCE/BBMP/WNo.09/KRIDL/WMM/ST/2014-15 10.05.2014

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Customer	**Asst. Executive Engineer,** Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, Bangalore.
Name of Work	Improvements to Main and Cross Roads, Construction of drains in G. Ramaiah Layout in Ward No. 09 of Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Reference	BBMP/AEE/YSSD/445/2013-14
Technical Reference	IS 2386 (Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	10.05.2014

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Result : Flakiness Index = **11.37%**

Elongation Index = **13.26%**

Result : Combined Flakiness & Elongation Index **24.63%**

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%.

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Lab No: CTCE/BBMP/WN-05/KRIDL/BC(3D)/2014-15 28.05.2014

TEST REPORT ON DETERMINATION OF BITUMEN CHARACTERISTICS

CLIENT	:	**Asst. Executive Engineer,** Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	:	Improvements to Main and Cross Roads, Construction of drains in G. Ramaiah Layout in Attur Ward No: 05 of Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/YSSD/445/2013-14
SAMPLE ID	:	Bitumen
PERIOD OF TESTING	:	28.05.2014

The results of the tests conducted on the bitumen sample using for Bituminous Concrete.

SL No	Description	Test Method as per IS	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 °C, 1/10 mm	IS:1203 - 1978 (RA-2009)	69	60 to 70
2	Softening point, °C	IS:1205 - 1978 (RA-2009)	48	Min. 45
3	Ductility at 27°C, cm	IS:1208 - 1978 (RA-2009)	100 >	Min. 50
4	Flash Point, °C	IS:1209 - 1978 (RA-2009)	290	Min. 220

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Job No: CTCE/BMSP/WNo03/KRIDL/IC/AIV/2014-15 28.05.2014

Aggregate Impact Value

Bangalore

Note:

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Job No: CTE/BBMP/YNo.05/KRIDL/HC/AIV/2014-15 28.05.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, Bangalore
Name of the Work	Improvements to Main and Cross Roads, Construction of drains in G. Ramaiah Layout in Amur Ward No. 05 of Yelahanaka Satellite Town Sub Division, BBMP, Bangalore
Reference	BBMP/AEE/YSSD/445/2013-14
Source / Location	Hot Mix Plant, Bangalore
Type of Mix	Bituminous Concrete
Date of Testing	28.05.2014

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	382	386	
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	83	87	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	299	299	
4	Aggregate Impact value = percent fines 100 (W_2/W_1)	21.73	22.54	22.13

Comments:

- Maximum allowable Aggregate Impact value for Bituminous Concrete is 24%.

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No. CTCE/BBMP/WNo.03/KRIDL-BC Stability/2014-15 30.05.2014

TEST REPORT ON STABILITY OF MIX

Client	:	Asst. Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	:	Improvements to Main and Cross Roads, Construction of drains in G Ramaiah Layout in Attur Ward No. 03 of Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Reference		BBMP/AEE/YSSD/445/2013-14
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Bituminous Concrete
Date of Testing	:	30.05.2014

The results of the tests conducted on the Bituminous Concrete mix sample are as follows:

Sl. No.	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-19)
1	Marshal Stability, Kn	10.50	9.75	9 Kn min
2	Marshal flow, mm	3.25	3.30	2 – 4
3	Percentage voids in Mineral Aggregate	14.20	13.45	13 – 15
4	Voids in Compacted Mix	4.35	3.80	3 – 6
5	Percent Voids filled with Bitumen	69.81	70.15	65 – 75
6	Density, g/cc	2.37	2.26	–

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